

SCS ENGINEERS

November 12, 2003
File No. 02200070.16

Mr. David Hartshorn
U.S. General Services Administration
1500 E. Bannister Road
Room 2101
Kansas City, Missouri 64131-3088

Subject: Environmental Site Investigation
601 Hardesty Street
Kansas City, Missouri

Dear Mr. Hartshorn:

Enclosed is a Draft of the Environmental Site Investigation (ESI) report for the subject property. The ESI was prepared by Elisabeth Freeman and senior review was provided by David Brewer for SCS Engineers' (SCS) proposal dated, February 27, 2003.

SCS appreciates the opportunity to provide environmental consulting services to GSA. Please contact either of the two undersigned should you have any questions.

Sincerely,

Elisabeth Freeman, E.I.T.
Staff Engineer
SCS ENGINEERS

David Brewer
Vice President
SCS ENGINEERS

Attachment

**ENVIRONMENTAL SITE INVESTIGATION
REPORT**

**HARDESTY FEDERAL CENTER
601 Hardesty Street
Kansas City, Missouri 64131**

Prepared by:

SCS ENGINEERS

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1. SITE DESCRIPTION

The Subject Site, Hardesty Federal Center, is an 18-acre facility presently containing seven structures located in Kansas City, Missouri. The seven structures are comprised of one and two story concrete and brick structures and include one former boiler house. The site overview below provides additional description of the location, legal description and other details regarding the Subject Site.

Site Overview

Address	The Hardesty Federal Center is located at 601-607 Hardesty Street, Kansas City, Missouri.
Current Ownership	United States General Services Administration.
Land Area	The property is a triangular parcel of land consisting of approximately 18 acres. The site is bordered by Hardesty Street on the west, Independence Avenue on the north, and by railroad tracks on the south.
Improvements, Construction Date and Additions	The U.S. Government acquired the site in 1940 and constructed 20 buildings with associated parking areas and loading docks. Thirteen of the original 20 buildings constructed at the facility have been abandoned and demolished. The Hardesty Federal Center is currently comprised of seven abandoned federal buildings.
Current Tenant and Premise Use	The site has been vacated since the late 1990s
Past Tenants and Prior Site Use	Past tenants included the Defense Mapping Agency, Federal Aviation Administration, Army Corps of Engineers, and the National Weather Service. Prior to development in the early 1940's the site was undeveloped.

Site and Vicinity General Characteristics

The Subject Site is developed with one-story and two-story buildings at the time of this report. Parking at the facility is provided by large asphalt paved surface lots and paved access roads.

The Subject Site has a perimeter security fence and access is limited to one main entrance on the west side of the property via Hardesty. The surrounding area is composed of a mixture of residential, retail and commercial land uses.

Current Use of the Site

The Subject Site is currently abandoned. Site maps are provided in **Appendix A** and photographs of the Site are provided in **Appendix B**.

Description of Structures, Roads, Other Improvements on Site

Roads

The Subject Site is bounded on the west by Hardesty Street, and on the north by Independence Avenue. Primary access to the Property is via a main gate connecting to Hardesty Street. A second access gate is located on the north side of the property and connects to Independence Avenue.

Structures

Structures on the site consist of buildings 3, 3A, 6, 7, 9, 10, and 11. Buildings 9, 10, and 11 are two-story buildings approximately 178,000, 93,000, and 217,000 square feet, respectively. They are constructed of cast-in-place concrete columns, walls and floors with brick exterior finishes. Buildings 9, 10, and 11 have full concrete basements and are connected by a series of underground concrete lined access tunnels. Buildings 6 and 7 are one-story buildings approximately 56,000 and 9,000 square feet, respectively. Building 6 is a steel framed two-story structure with corrugated asbestos siding. Building 7 is constructed of masonry brick and concrete. Building 3 and 3A are also one-story structures with full concrete basements measuring 18,000 total square feet. Building 3 was utilized as a boiler house and Building 3A was historically utilized as a coal unloading facility that has been converted to a maintenance area. A smokestack, measuring approximately 200 feet in height, remains in-place adjacent to Building 3.

Utilities

Electrical power at the Subject Site is supplied by Kansas City Power & Light and enters the site from the north and enters Building 13. Service to the complex is through a 13,800 volt system of oil filled cable and transformers.

Potable Water Supply

No running water was noted in any of the buildings.

Sewage Disposal System

Sanitary and storm sewer service for the Subject Site is provided by the City of Kansas City.

2. SITE RECONNAISSANCE

General Site Setting

On March 10 and 11, 2003, David Brewer, Heather Erickson, and Elisabeth Freeman of SCS Engineers performed a site reconnaissance of the Subject Site for obvious or suspected hazardous substance contamination, such as stained floors, abandoned equipment, fill ports or vent pipes from underground storage tanks, or other similar signs. On March, an additional site visit was made to identify electrical system components throughout the facility. Building Site Inspection Worksheets are included in Appendix A of this report. Site photographs are included in Appendix B of this report.

Site Observations

General site observations identified by building are as follows:

BUILDING 11

Second Floor

480 Volt Transformer next to column V5

Serial No. 9834940

Maintenance Office/Break Room

Miscellaneous Housekeeping and maintenance items (i.e. paints, cooling water treatment kit, aerosols, glue, drain cleaners, cleaning products, oils) Chillers manufactured by Honeywell

12 sets of system/interlock/chiller switches

A.D. Jacobson Plumbing and Heating and Cooling Inc. KC MO – 2 (No. 1 and 2)

No. 1 Size C4-23B-24B Serial No. 1667

Refrigerant 113 115 Volts

No. 2 Trane Centravac

VICTOR 2-0500

Size C4-23B-24B Serial No. 1666

Refrigerant 113 115 Volts

Oil Spill on ground encompassing 10' dia. coming out of pump from NO. 1. Tile exposed affected with white spots.

Bermed Area

Transformer in area of column S3/S2

Suspect this transformer leaked to 1st Floor – was found to contain PCBs

However, sticker placed on Transformer that indicates No PCBs - discrepancy

I-T-E Power Transformer 13860 Volts

Serial No. 876002097

MFG YR 1987/March

Maintenance Shop

Florescent lightbulbs/R22/Oils/Cleaners/General Housekeeping/Maintenance Items [Picture 1593]

Dry Transformer Box

Pump wiring connects to Chiller No 1 in adjoining room.

Disconnected Transformer

Freon 22/55 gallon Drum of Elevator Oil/Scale Remover/Algae Control

PCB containing ballasts on shelves

Roof

3 building on roof that contains Elevator Rooms/Pulley Room which houses flammable materials

Cooling system contains R22 (3 units)

First Floor

Column J4/I4 – a large room adjacent to conveyor belts contains a 30 gal drum of TC-602 by BarCorp, Inc. Closed Recirculation System Deposit and Corrosive Inhibitor: Ferrous/Non-Ferrous blend

Piles of old transformers/ballast contain PCBs

Paints/Florescent light bulbs/Light bulbs/Fuses/Switches/Misc. electrical equipment

Front Bathroom next to loading dock contains shopping cart full of ballasts some ID with PCBs

Spill ID as Main floor spill was tested for and found to contain PCBs. Tile floor under spill suspected to be asbestos tiles. Pictures taken through opening in ceiling. Leak identified also sign indicated danger 13,860 Volts which corresponds with the 2nd floor Transformer.

Incinerator Room:

Incinerator

Disintegrator/shredder 240 Volts

Transformer Unit Next to Incinerator Room

Air Handler Room/Maintenance Closet

Contains florescent bulbs/Water Cooler

45KVA Transformer

Rust Stain under Chiller Column T3/T4

Basement

Transformer located on Column G6

Bermed Area

Contains Oil Filled Transformer that contains a 304 gallon Tank not labeled might be containing PCBs. Oil tank has two major switches on either side.

ITE Electrical Products

Serial NO. 876500008 Manufacturer: July 1987

13,800 Volts

Mechanical Room

Contains Main Chiller/Fan/Circulating Room

Mold on Walls/Hallways/Rms on South end of Building

Water Leak from South leads to mold on walls.

BUILDING 10

1st Floor

Roof leaking /May be from boiler Room

Paint Cans/Cleaner in North Side/Office Room with carpet.

Pigeon Droppings encompass floor/some pigeon carcasses

2nd Floor

Elevator Shaft

Cleaning Solvents/Lubricant/Oil/Inflammable boxes

Ceiling leaking creating puddle on floor with crystallization occur, appears to be some type of oil

Picture taken from the roof/outside the elevator shaft to ID leak

Basement

Hoffman Pump ITT [Pictures 1609 – pump piping located above pipe

Serial No. 003491 460 Volts

Floor Spill by Corrosive Tank

2- 30-gal Corrosive containing Compounds Cleaning Liquid/Wax Stripper

Maintenance/Floor Cleaning Materials

Floor Spill next to cages

East side of the building 13,800 Dry Transformer

Transformer Room

Sign on door indicates no PCBs but sign on equipment state's PCBs present: container less than 500 ppm of PCBs but equal to or greater than 50 ppm PCBs

BUILDING 9

Basement

Shooting Range

Dry Transformer

208 Volt Transformer

ITE Enclosed Switch General

Cat. No. JN425 Series B Type 1, Indoor

Boiler Room

Engine burnt out/Melted Steel

2-30 gal drums of TC 700 Corrosive Cooling Water deposit and Corrosion Inhibitor

Cooling Water Treatment Formula 291

2 – 55 gal drums of R-11

1 - 10 gal drum

1- 30 gal Tri-Chlorofluoromethane/Freon 11

Westinghouse Transformers (2 Identical) in boiler Room

Serial No. 6362601 132 kV Phase Disconnect switch

Fuse Refill # 1314149

Dry Transformer

Mold on Ceilings

1st Floor

Blowers

Large Generator/Transformer

Westinghouse Instruction book 48-550-C231

Serial No. 6362600

Leakage from the above mentioned Transformer

2nd Floor

Wide Open full of Pigeons and Pigeons droppings/carcasses – possible health hazard

BUILDING 3

4-5 gallon buckets Boiler Water treatment Formula 4010

Light bulbs/Miscellaneous Maintenance Supplies

3 – TB-108 Alkalinity Builder

TB-350 Feed water/Boiler Water

TB-217 Catalyzed Oxygen Separator

2 – 55 gal drums had weight to them but no labels

Boiler exploded

Rusted 5 gal. drum

Transformer Room Sign indicating no PCBs

Model No. 9725Y447G10 13,860 Volts

Paint Cans

Basement Subject to Flooding

BUILDING 3A

2-Oxygen and Acetyne plus old gas cylinders

Miscellaneous Maintenance items, (i.e. Oil products, lubricants and paints)

BUILDING 6

First Floor

Elevator Transformer

2nd Floor

Two signs indicating Metrology lab and Engineering Pre-Fab Lab/Office

Paint Booth

1 –55 gal. Drum Simple Green

2 – 5 gal. Wall Paint

1 – 5 gal. Carpet tile release adhesive

Metal Shop/Woodworking

Mold on walls/leaking ceilings

Roof leaking/Pipe leak appears to start in Boys Bathroom on North end of building

BUILDING 7

Carpentry/plumbing/electrical/custodial Storage

Welding and braising Room

Building contains mostly water damage.

Mold on Floor/Walls/Ceilings

Paint coming off walls

Leak from roof/build up on floor

Ceiling leaking dripping off water sprinkler and splashing on walls/staining walls and floor

1 – 5 gal. Bucket of paint. Bucket indicates contains anti-mold for high mildew

ESI SAMPLING

During further ESI inspection activities, a list of environmental concerns were identified which required sample analysis to determine their potential impact to the site. The electrical supply system for the facility was evaluated and determined to be comprised of a series of oil filled transformers connected by a series of high voltage (13,800 volts) oil-filled cables. Each cable attached to the transformers through a series of oil filled switches. An extensive assessment of the electrical supply system was performed to determine whether additional oil may have leaked from other areas of the distribution system and whether the oil contained PCBs.

SCS performed a variety of sampling activities during April 2003 to determine the extent of potential impacts from the identified areas of concern. The following is a list of areas of concern, media sampled, and sample results associated with the identified areas.

BUILDING 11

Transformers-SCS collected a sample of the oil from the oil tank associated with the transformer on the second floor and from the oil tank of the transformer in the basement. The oil samples were analyzed for PCBs. Analytical results for the transformer oil samples were Not Detected (ND).

Transformer Containment Areas-SCS collected wipe samples of the floors of the containment areas surrounding the transformers on the second floor and in the basement. The wipe samples were analyzed for PCBs. The second floor containment wipe sample detected PCBs at 2.2 micrograms (ug)/wipe while the basement containment wipe sample detected PCBs at 0.67 ug/wipe. A cleanup level of 10 ug/wipe was used for the Hardesty Project.

Spills-A floor spill in the chiller room was wipe sampled for PCBs. The sample results were ND. A wall spill of an area adjacent to the chillers was wipe sampled for PCBs. The sample results were ND.

Light Ballast-A light fixture containing leaking ballast was sampled for PCBs. Sample results determined that the oil leaking from the ballast contained PCBs (7,700 milligram per kilogram (mg/kg)).

BUILDING 10

Transformers-SCS collected a sample of the oil from the oil tank associated with the three transformers in the basement transformer vault. The oil samples were analyzed for PCBs. Analytical results for the transformer oil samples were Transformer 1139 (57 mg/kg), Transformer 1140 (4.1 mg/kg), and Transformer 1141 (33 mg/kg).

Transformer Vault Areas-SCS collected wipe samples of the casing of one transformer and from a support beam supporting an oil filled switch. The wipe samples were analyzed for PCBs. The transformer casing wipe sample detected PCBs at 13 ug/wipe while the switch support beam wipe sample detected PCBs at 86 ug/wipe. A cleanup of these spill areas was not proposed because the spill areas were located in the transformer vault room and cleaning these areas would require the termination of all electrical power to the facility.

Spills-A floor spill on the second floor of the building at the base of an abandoned elevator equipment room was sampled. The spill sample was analyzed for Total Petroleum Hydrocarbons (TPH) and for PCBs. The sample results for PCBs were ND. The sample results for TPH detected motor oil range TPH at a detected level of 7.3 mg/kg. The spill was assumed to be hydraulic oil.

Floor Sediment-A considerable amount of liquid and solid was spilled over the basement floor. The spill area was sampled for Semi-volatile Organic Compounds (SVOCs) by EPA Method 8270 and for metals by EPA Method 6010. Sample results detected minor amounts of arsenic, barium, cadmium, chromium, lead, selenium, naphthalene, flourene, phenanthrene, anthracene, flouranthene, pyrene, and chrysene at levels below Missouri CALM Standards.

BUILDING 9

Transformers-SCS collected a wipe sample of apparent oil spattered on the side of a transformer located on the first floor. The wipe sample was analyzed for PCBs. Analytical result for the wipe sample was ND.

High Voltage Pull Box-SCS collected a wipe sample from the casing of one high voltage pull box. The wipe sample was analyzed for PCBs. The wipe sample detected PCBs at 24 ug/wipe.

Spills-A floor spill on the basement floor of the building in the former reproduction area of the National Weather Service area. The spill was black in color, powdery in texture, and covered an area approximately fifty feet by fifty feet. The spill sample was analyzed for SVOCs, metals, and for PCBs. The sample results for PCBs were ND. The sample results for SVOCs detected benzoic acid, pentachlorophenol, phenanthrene, butyl benzyl phthalate, and chrysene. Metals detected included mercury, arsenic, barium, cadmium, chromium, lead, selenium, and silver. An additional sample of the floor spill was collected and analyzed for TCLP metals. All results were ND.

BUILDING 7

Oil Spills-SCS collected a wipe sample of apparent oil spills at two locations within Building 7. The wipe samples were analyzed for PCBs. Analytical result for the wipe samples were 0.51 ug/wipe and 1.1 ug/wipe.

BUILDING 6

Oil Spills-SCS collected a wipe sample of an apparent oil spill within Building 6. The wipe sample was analyzed for PCBs. Analytical result for the wipe sample was 22 ug/wipe.

BUILDING 3

Transformer and Switch-SCS collected a sample of the oil from the oil tank associated with the transformer in the first floor transformer vault and from the switch associated with the transformer. The oil samples were analyzed for PCBs. Analytical results for the transformer and switch oil samples were 5.5 mg/kg (transformer) and ND (switch).

Transformer Vault Area-SCS collected wipe samples of the floors in the transformer vault surrounding the transformer and switch. The wipe samples were analyzed for PCBs. The transformer floor wipe sample detected PCBs at 200 ug/wipe while the switch floor wipe sample was ND. A cleanup level of 10 ug/wipe was used for the Hardesty Project.

Spills-Floor spills in the basement associated with an abandoned switch were wipe sampled for PCBs. The sample results from the floor below the switch was 14 ug/mg. A spill of oil was discovered associated with a cabinet box in the basement. An oil sample was analyzed for PCBs. The oil sample detected PCBs at 0.150 mg/kg. Accumulated sediment adjacent to the cabinet was sampled and analyzed for PCBs. Analytical results detected PCBs at 1.0 mg/kg.

Above Ground Tank-An above ground tank containing an unidentified solid was sampled for metals and corrosivity. Sample results determined that the solid contained minor amounts of lead and had a pH of 6.8.

3. FINDINGS AND OPINIONS

Based on the findings of this ESI, SCS concludes the following:

- The Subject Site receives electricity from a PCB containing oil-filled electrical distribution system including oil-filled cable, switches, and transformers. Numerous small spill areas exist in most buildings. Spill areas were sampled and where sample results indicate impacts that exceed the 10 mg/kg standard areas should be cleaned to acceptable standards. SCS performed PCB remediation activities to address the areas where impacts exceeded the 10 mg/kg standard. Remediation activities are summarized in Section 3 of the Hardesty Project Report.
- The Subject Site has additional small spill of various solids and liquids. Sampling of these areas confirmed that these spill areas do not pose a threat to health or environment.
- Several containers of unknown substances exist in several buildings at the site. These containers containing unknown substances should be removed and disposed according to the applicable regulations. SCS performed sampling and disposal activities associated with the unknown substances. Sampling and disposal activities are summarized in Sections 2 and 3 of the Hardesty Project Report.

Based on SCS' site reconnaissance, interviews with individuals knowledgeable about the Subject Site, and review of regulatory and site documents, no other current recognized environmental concerns were identified on the Subject Site.

APPENDICES

Appendix A	Site Inspection Worksheets
Appendix B	Site Photographs

APPENDIX A

SITE INSPECTION WORKSHEETS

APPENDIX B
SITE PHOTOGRAPHS